WHAT IS CLAIMED IS:

1. A sodium-based dechlorinating agent comprising a mixture of sodium hydrogencarbonate and a hydrophilic anti-caking agent, with an angle of repose of at least 40°, a dispersibility of less than 50, and a floodability index value of less than 90.

2. A sodium-based dechlorinating agent according to claim 1, wherein said sodium hydrogencarbonate has a mean particle diameter within a range of from 2 μm to 30 μm.

3. A sodium-based dechlorinating agent according to claim 1, wherein said hydrophilic anti-caking agent comprises silica, and 0.1 mass % or more of said hydrophilic anti-caking agent is mixed.

4. A sodium-based dechlorinating agent according to claim 1, wherein said sodium hydrogencarbonate has a mean particle diameter within a range of from 2 μm to 30 μm, said hydrophilic anti-caking agent comprises silica, and 0.1 mass % or more of said hydrophilic anti-caking agent is mixed.

5. A sodium-based dechlorinating agent according to claim 1, wherein said hydrophilic anti-caking agent has a mean particle diameter within a range of from 0.001 μm to 1 μm.

6. A waste treatment equipment comprising:

a pyrolytic reactor which causes pyrolysis of waste to generate pyrolytic gases and pyrolytic residue mainly comprising non-volatile constituents; separating means for separating said pyrolytic residue into combustible constituents and incombustible constituents;

a combustion melting furnace to which said pyrolytic gases and said combustible constituents are fed, and which causes combustion thereof and discharges molten slag and flue gases;

first flue gas treating means for removing dust from said flue gases;

second flue gas treating means dechlorinating the flue gases from said first flue gas treating means by adding a dechlorinating agent;

a separator which separates water-insoluble constituents not dissolved in water from an aqueous solution containing said residue of dechlorination dissolved therein by adding water to the residue of dechlorination generated by said second flue gas treating means;

a pH modifier which adjusts pH of the remaining aqueous solution after separation by the water-insoluble constituents by said separator; and

at least another one dioxin removing unit which removes dioxin and the like from the residue of dechlorination generated by said second flue gas treating means and/or from

the aqueous solution of which pH has been adjusted by said pH modifier;

a sodium-based dechlorinating agent comprising a mixture of sodium hydrogencarbonate and a hydrophilic anti-caking agent, and having an angle of repose of 40° or more, a dispersibility of less than 50 and a floodability index value of less than 90, serving as said dechlorinating agent, is added to said second flue gas treating means.

7. A waste treatment equipment according to claim 6, wherein said sodium hydrogencarbonate has a mean particle diameter within a range of from 2 μm to 30 μm.

8. A waste treatment equipment according to claim 6, wherein said hydrophilic anti-caking agent comprises silica, and 0.1 mass % or more of said hydrophilic anti-caking agent is mixed into said sodium-based dechlorinating agent.

9. A waste treatment equipment according to claim 6, wherein said sodium hydrogencarbonate has a mean particle diameter within a range of from 2 μm to 30 μm, said hydrophilic anti-caking agent is a silica-based anti-caking agent, and 0.1 mass % or more of said hydrophilic anti-caking agent is mixed into said sodium-based dechlorinating agent.

10. A waste treatment equipment according to claim 6, wherein said hydrophilic anti-caking agent has a mean particle diameter within a range of from 0.001 μm to 1 μm.

11. A waste treatment equipment according to claim 6, wherein said apparatus has a mercury removing unit which removes mercury from the remaining aqueous solution after separation of the water-insoluble constituents.

12. A waste treatment equipment according to claim 6, wherein said apparatus has a mixer for mixing said sodium hydrogencarbonate and said hydrophilic anti-caking agent and a grinder for grinding said sodium hydrogencarbonate.

13. A waste treatment equipment according to claim 10, wherein, in said grinder, said sodium hydrogencarbonate is ground into a mean particle diameter within a range of from 2 μm to 30 μm.

14. A waste treatment equipment according to claim 6, wherein a mercury removing unit for removing mercury from the aqueous solution of which pH has been adjusted by said pH modifier is provided in the downstream of said pH modifier.

15. A flue gas dechlorinating method comprising the step of adding a sodium-based dechlorinating agent which comprises a mixture of sodium hydrogencarbonate and a hydrophilic anti-caking agent, and said sodium-based dechlorinating agent has an angle of repose of 40° or more, a dispersibility of less than 50 and a floodability index value of less than 90.

16. A flue gas dechlorinating method according to claim

15, wherein said sodium hydrogencarbonate has a mean particle diameter within a range of from 2 μm to 30 μm.

17. A flue gas dechlorinating method according to claim 15, wherein said hydrophilic anti-caking agent comprises silica, and 0.1 mass % or less of said hydrophilic anti-caking agent is mixed into said sodium-based dechlorinating agent.

18. A flue gas dechlorinating method according to claim 15, wherein said sodium hydrogencarbonate has a mean particle diameter within a range of from 2 μm to 30 μm, said hydrophilic anti-caking agent comprises silica, and 0.1 mass % or less of said hydrophilic anti-caking agent is a silica-based anti-caking agent is mixed into said sodium-based dechlorinating agent.

19. A flue gas dechlorinating method according to claim 15, wherein said hydrophilic anti-caking agent has a mean particle diameter within a range of from 0.001 μm to 1 μm.

20. A flue gas dechlorinating method according to claim 15, comprising the steps of causing hydrogen chloride contained in said flue gas to react with said sodium-based dechlorinating agent to remove the same as residue of dechlorination, removing dioxin and the like from said residue of dechlorination, then, dissolving said residue of dechlorination by adding water, separating water-insoluble constituents not dissolved in water from an aqueous solution

in which said residue of dechlorination is dissolved, and adjusting pH of the remaining aqueous solution after separation of said water-insoluble constituents.

21. A flue gas dechlorinating method according to claim 20, wherein dioxin and the like remaining after removal are removed again after pH adjustment.